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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,749	02/07/2000	Noboru Masuda	33216M038	9264

7590 10/06/2004

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EXAMINER	
LAMB, BRENDA A	

ART UNIT	PAPER NUMBER
1734	

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/498,749	Masuda et al
Examiner	**Group Art Unit**
LAMB	1734

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 11/07/03 and 8/19/04.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-3, 7-23, 26-30 and 49-57 is/are pending in the application.

Of the above claim(s) 49-57 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-3, 7-23 and 26-30 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

In view of the Notice of Withdrawal From Issue Under 37 CFR 1.313(b), the allowability of claims 1-3, 7-23 and 26-30 is withdrawn and the amendment filed 8/19/2004 has been entered. The rejection of the claims from the instant application is set forth below.

Newly submitted claims 49-57 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the apparatus as claimed can be used to practice another and materially different process such as one wherein the nozzle is in contact with the base material and not arranged at a predetermined distance from the base material as set forth in the newly recited claims or wherein the base material is conveyed by air jets and not by a backing roll past the nozzle.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 49-57 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 7, 9, 10 and 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Claassen.

Claassen teaches the design of an intermittent coating apparatus comprised of a nozzle for applying coating to the base and an intermittent coating supply means which is comprised of the following elements: a coating tank/reservoir, a flow path/route/way for supplying coating from the coating tank, the flow path includes a feeding side/point/opening in communication with the nozzle and a return side in fluid communication with the coating tank/reservoir, and a segment that connects the feeding side and return side; a two-way valve positioned between the flow path segment and side/opening of flow path in fluid communication with the nozzle; and a second valve 25 positioned between flow path segment and side/opening of the flow path in communication with the coating tank or the return side of the flow path, the second

valve inherently acts as a two-way valve in that it stops/starts flow from source to the flow path leading to the first valve. The limitation in claim 1 that the return side two-way valve discharges the coating to the return side during at least a prescribed period of time from the time of starting of feeding of the coating by the feeding side two-way valve, and thereafter the return side two-way valve stops the discharge of the coating to the return side is intended end use of the apparatus. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987). With respect to claim 7, the recitation of the apparatus the intermittent coating supply means starts the discharge of the coating to the return side at the time of ending the feeding of the coating is intended end use. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). Note further with respect to claims 1 and 7, Claassen coating apparatus is capable of the intended end use of discharging via return valve the coating to the return side a predetermined period time from the start of coating by the feed valve or discharging coating to the return side at the time of ending the feeding of the coating since the space between feed valve and return valve and space within bore 7 would enable one to store and thereby discharge a quantity of coating through the feed valve for a period of time without feed of coating thru the return side valve to the flow path leading to the feed side valve or discharge

coating to the return side at the time of ending the feeding of the coating. With respect to claims 9-10, Claassen teaches the coating apparatus includes a pump, pressure relief valve and reservoir which functions together as a paint returning means (see column 3 line 57 to column 4 line 2). The limitation that the coating returning means returns the coating to the nozzle at the time of starting the feeding of the coating to the nozzle at the coating start time, and draws the coating out of nozzle at the time of stopping the feeding of the coating to the nozzle is intended end use of the apparatus. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). With respect to claim 26, Claassen teaches the intermittent coating supply means having a control means which includes a combination of microprocessor and electromagnetic control valves 15, 31 for needle valves 9, 25 which enables independent control of the feed valve 9 and return valve 25. With respect to claim 27, Claassen teaches the feed valve includes a piston which opens and closes the flow path by operating a piston (see column 3 lines 39-57). Claassen teaches the return valve 25 has substantially the same structure as feed valve as exemplified in his figure and therefore the piston in the return valve would have moved to close the flow path in the manner set forth in the claim.

Claims 2-3, 8, 11-23 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claassen.

Claassen is applied for the reasons noted above Claassen fails to teach the prescribed period of time or time intervals between discharge of coating to the return side by the return valve and feed of coating to the nozzle by the feed valve as set forth in claims 2-3, 8 and 28-29. However, Claassen teaches operating valves in desired intervals and displacements with respect to each other. Therefore, it is deemed that Claassen microprocessor is structured and arranged to operate valves 9,25 in the manner such that feeding of coating to the nozzle and discharge of coating to the return side occurs within the time interval set forth in the instant claims. With respect to claim 11, Claassen teaches the microprocessor can control opening and closing the feed valve 9 and return valve 25 at the desired time intervals and at desired displacements with respect to each other. Claassen fails to teach control means for controlling operation time A and operation time B. However, it would have been obvious to program the programmable microprocessor in the Claassen apparatus such that operation time A and operation B is within the scope of claim 11 dependent on the desired amount of coating applied to the respect to the substrate. With respect to claims 30 and 12-23, Claassen fails to teach the amount of paint sucked out of the nozzle to the tank and flow rate of paint returned to the nozzle. However, it would have been obvious to modify Claassen by using as the pump, an adjustable flow rate pump, since the use of an adjustable flow rate pump is known in a fluid handling system such as a coating process, for the obvious advantage of greater control of the coating process. Further, it would have been obvious given modified Claassen apparatus as discussed above to optimize the flow rate and amount of coating drawn out of nozzle to

the tank and to optimize the flow rate and amount returning to the nozzle using an adjustable rate pump such that it is within scope of the claim dependent on the desired application rate of coating on the substrate. Further, it would have been obvious to controllably drive the Claassen pump using conventional drives means piezo electric element, for the obvious advantages of greater control of the coating process.

Applicant's arguments filed on 10/8/2002 have been fully considered but they are not persuasive. Applicant's argument that Claassen is a three way valve and cannot permit fluid flow through both feed and return flow path at the same time is found to be non-persuasive. As discussed above, Claassen second valve or return valve 25 inherently acts as a second way valve in that it stops/starts flow from source/reservoir to flow path that leads to the first valve or feed valve 8. Further, claim 1 does not call out for the return valve to permit flow through both the feed and return flow path rather requires that return valve discharge coating to the return side al least a prescribed period of time from the starting of coating by the feed valve. Claassen coating apparatus is capable of the intended end use of discharging via return valve the coating to the return side a predetermined period time from the start of coating by the feed valve since the space between feed valve and return valve and space within bore 7 would enable one to store and thereby discharge a quantity of coating through the feed valve for a period of time without feed of coating thru the return side valve to the flow path leading to the feed side valve.

Applicant's argument that Claassen fails to teach a device, which actively draws coating out of the nozzle, which is like applicant's piston 501, is found to be non-

persuasive. The claims are silent as to the use of a piston to draw out coating from the nozzle. Further, when the Claassen pressure-relief valve on the pump opens up, coating in the flow path, which is communication with the nozzle, is drawn out.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Lamb whose telephone number is (571) 272-1231. The examiner can normally be reached on Monday thru Tuesday and Thursday thru Friday with alternate Wednesdays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brenda A. Lamb

BRENDA A. LAMB
PRIMARY EXAMINER